

Claims

1. Electronics device, such as a modem, having an interface operable with a complete protocol stack code in normal operation, and comprising a non-volatile memory, such as a flash memory containing a code for booting said device, **wherein** software of said device is upgradable during a booting operation of said device via said interface, wherein said boot code comprises a lightweight protocol stack code for said interface, said lightweight protocol stack comprising a subset of the layers of the complete protocol stack.
2. Device according to claim 1, **wherein** said boot code comprises a control code for detection of said interface, and a protocol handling code for transmitting and receiving via said interface.
3. Device according to claim 1, **wherein** said interface is a USB interface.
4. Device according to claim 3, **wherein** said boot code contains the Ethernet on USB mapping part of said complete protocol stack code.
5. Device according to claim 3 having a second memory, **wherein** said second memory comprises the complete USB protocol stack code for communication over a wide area network.
6. Device according to claim 1, further comprising an Ethernet interface and a code for transmitting and receiving via said Ethernet interface during the boot operation.
7. System for downloading files to an electronic device according to claim 1, comprising said device and a computer provided with a driver for said interface, **wherein** said computer is connected to said device over said interface, wherein said remote computer contains an executable program code for communicating with said device and for providing the files to be downloaded.

8. System according to claim 7, wherein said interface is a USB interface, **wherein** a connection is established respectively on endpoints 4 and 5 of the USB interface to allow frames to be sent to and from the USB device.

5 9. Method for downloading a file into a memory part of an electronic device provided with a USB connection, comprising the steps of:

- storing said file in a one or more computers, wherein at least one computer is provided with a USB interface;
- 10 - connecting said device to one or more computers over at least the universal serial bus;
- sending at least one boot request from said device to said one or more computers over said USB interface using a reduced USB protocol stack compared to a complete USB
- 15 protocol stack;
- sending at least one boot reply from said one or more computer to said device;
- sending a file transfer request from said device to one of said one or more computers;
- 20 - sending said stored file from said one computer to said device.

10. Method according to claim 9 for downloading a file into a memory part of an electronic device provided with a USB and an Ethernet connection, **wherein** the electronic

25 device is connected to at least one computer over an Ethernet connection.